



SX-62

the hallicrafters co.

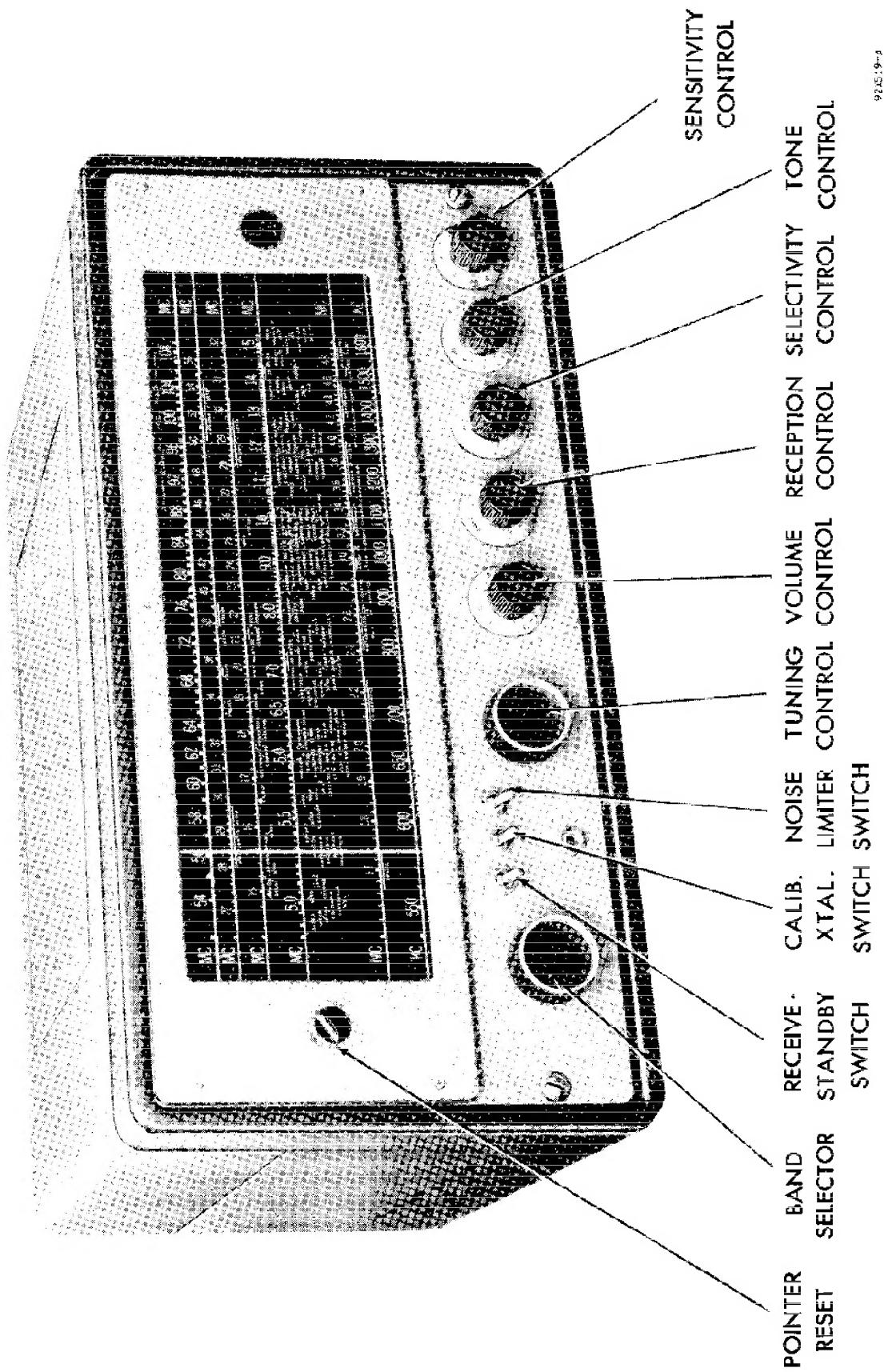
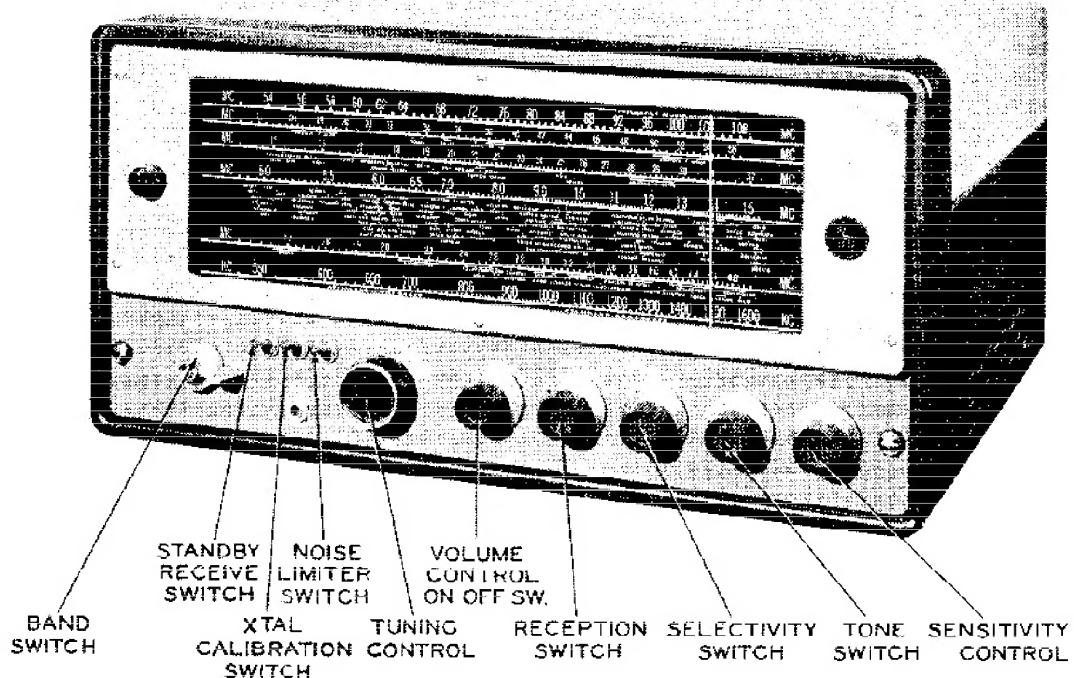


Fig. 1. Radio Receiver Model SR-62/62U



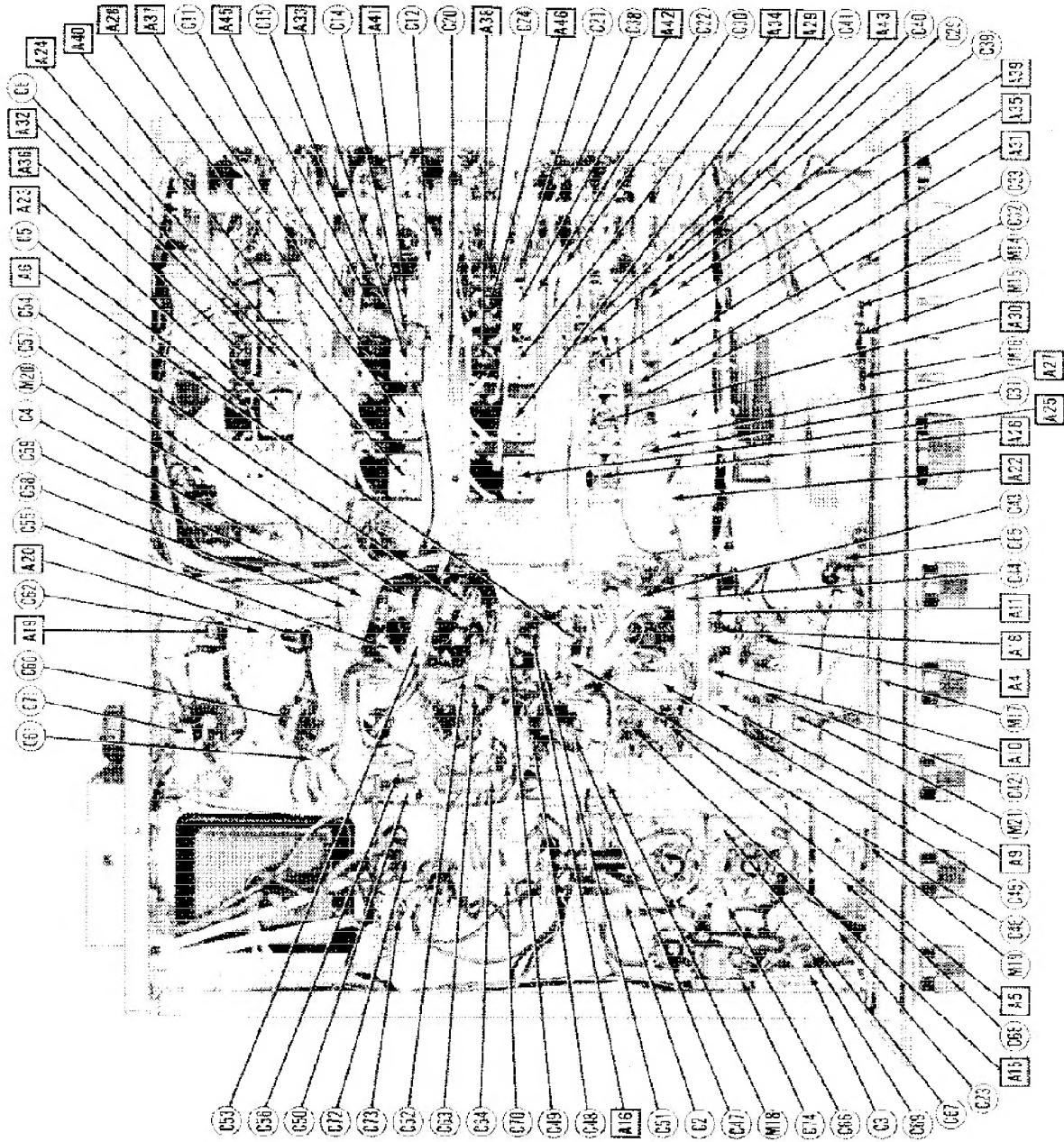
HALICRAFTERS MODEL SX-62	
TRADE NAME	Hallicrafters, Model SX-62
MANUFACTURER	The Hallicrafters Co., 5th & Kostner Avenues, Chicago 24, Illinois
TYPE SET	AC Operated Multi-Band AM-FM Superheterodyne Receiver
TUBES (SIXTEEN)	Types 6C4 XTAL Calib. Osc., 6AC5 1st RF Amp., 6AC5 2nd RF Amp., 7FG Converter, 6SK7 1st IF Amp., 6SC7 2nd IF Amp., 757 3rd IF Amp., 7H7 4th IF Amp.-AM Det-AVC, 6H6 Discriminator, 744 CW Beat Osc., 6H6 Noise Limiter, 6SLVGT AF-Phase Inv. (2) 6V6GT Power Output, DB3/VR 150 Voltage Regulator, 6X4G Rectifier
POWER SUPPLY	105-125 Volts AC
	RATING: 48 Amp., @ 117 Volts AC
TUNING RANGE	Band #1 550-1620KC, Band #2 1.63-4.9MC, Band #3 4.9-15MC, Band #4 15-52MC, Band #5 27-56MC AM-FM, Band #6 54-108MC FM-FM

HALICRAFTERS
MODEL SX-62

HOWARD W. SAMS & CO., INC. • Indianapolis Indiana

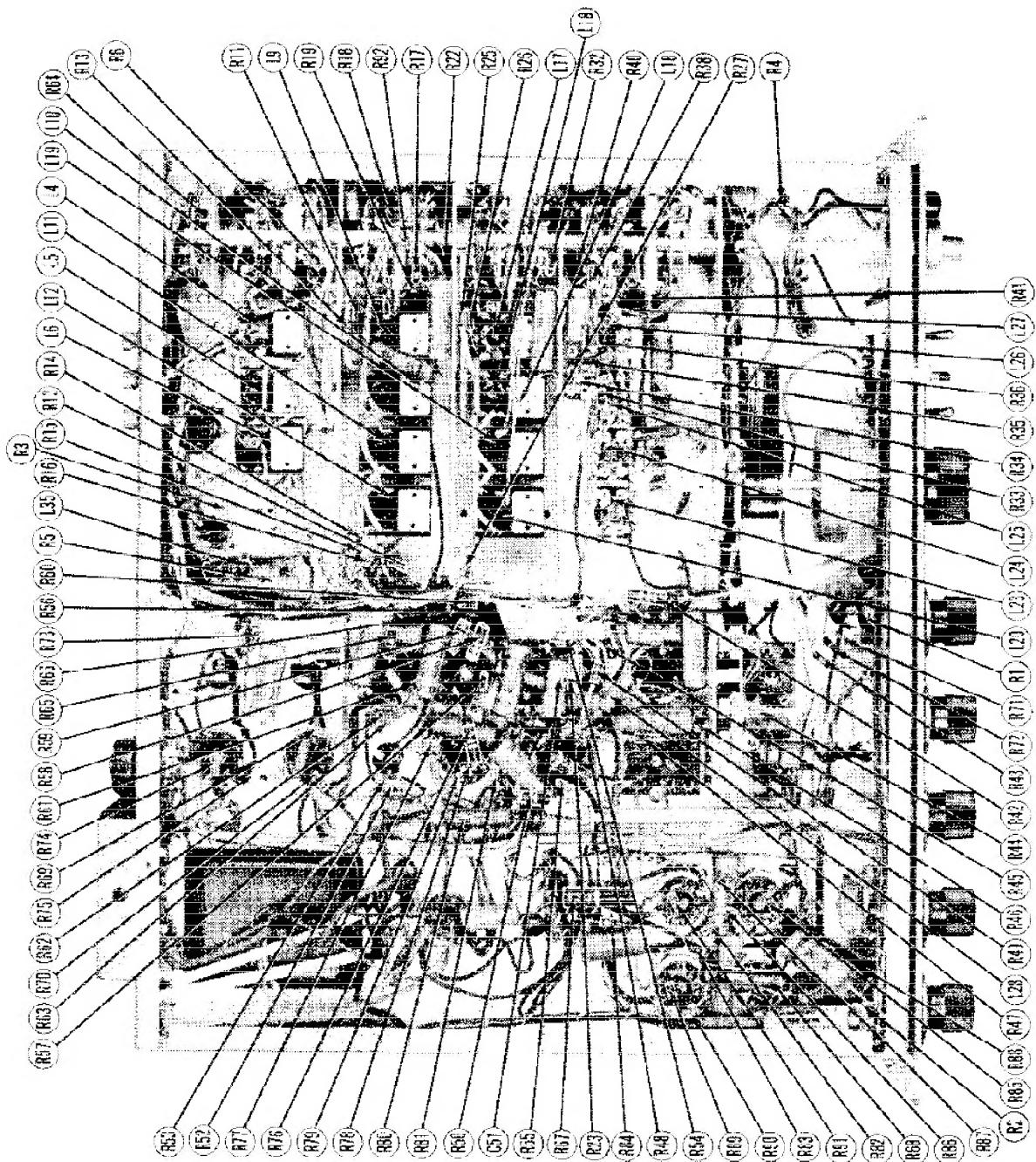
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**HALICRAFTERS
MODEL SX-62**

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PARTS LIST AND DESCRIPTIONS

TISSUE (SYLVANIA or EQUIVALENT)

ITEM No.	USE	REPLACEMENT DATA			NOTES
		WILCOX* PART No.	STANDARD PART No.	EMI BASE TYPE	
V1	XP10 1.91" x 1.91" 1.91" x 1.91"	344 6633	344 6635	310 310	
V2	2nd 2P 1.91"	645	645	7E1	
V3	2nd 2P 1.91"	748	748	33W	
V4	2nd 2P 1.91"	748	748	33W	
V5	1st 2P 1.91"	65K7	65K7	3N	
V6	1st 2P 1.91"	65K7	65K7	3N	
V7	2nd 2P 1.91"	757	757	3R	
V8	2nd 2P 1.91"	757	757	3V	
V9	3rd 2P 1.91"	757	757	3V	
V10	4th 2P 1.91"	757	757	3V	
V11	AB-307-AVC	757	757	3V	
V12	Direct 1.91"	616	616	54C	
V13	Direct 1.91"	616	616	54C	
V14	Direct 1.91"	616	616	54C	
V15	GW Base OSC	744	744	7C	
V16	GW Base 2POT	744	744	7C	
V17	1st 2P 1.91"	616	616	5B1	
V18	2nd 2P 1.91"	616	616	5B1	
V19	3rd 2P 1.91"	616	616	5B1	
V20	4th 2P 1.91"	616	616	5B1	
V21	Power CIRCUIT	67605	67605	7AC	
V22	Power CIRCUIT	67605	67605	7AC	
V23	Voltage Regulator	303-74-140	303-74-140	44C	
V24	Voltage Regulator	303-74-140	303-74-140	44C	
V25	EG21116C	303-74-140	303-74-140	44C	

CAPACITÉ

Capacity values given in the rating column are in μ for Electrolytic and Paper Capacitors, and in mmf for Mica and Ceramic Capacitors.

PARTS LIST AND DESCRIPTIONS (continued)

235 | STORIES

PARTS LIST AND DESCRIPTIONS (Continued)

PARTS LIST AND DESCRIPTIONS (Continued)

CONTROLS

URBANISCHER (POWER)

PRANSEDRMEP (POWER)

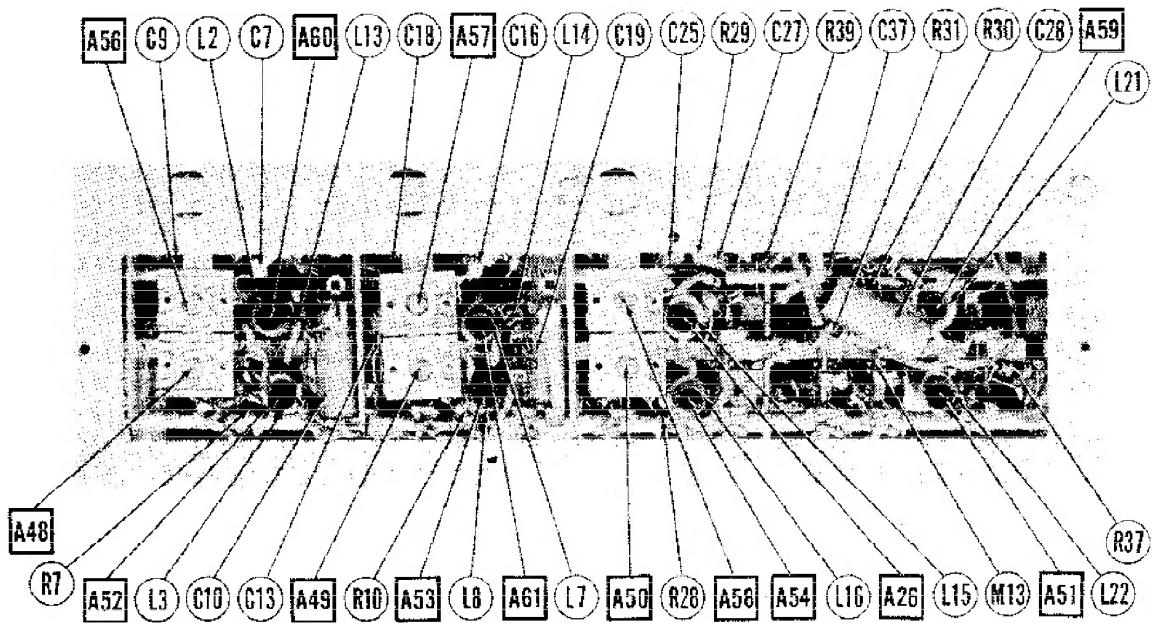
URBANISCHER (POWER)

PARTS LIST AND DESCRIPTIONS (Continued)

DIAL LIGHTS

ITEM No.	BASE TYPE	VOLTS	AMPS.	REPLACEMENT DATA		NOTES
				HARVEY CHASSIS PART No.	READ COLOR	
744	Base A	6.3	0.35A	744	Blue	Part #24
745	Base B	6.3	0.35A	745	Blue	

MISCELLANEOUS



ALIGNMENT INSTRUCTIONS

IF ALIGNMENT

Pre-set the front panel controls as follows.							
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
1. 1MFD	High side to Pin 1 (Grid) 782 (V4). Low side to chassis.	455KC	Band 1	1000KC	Across voice coil	A1, A2, A3, A4, A5, A6	Adjust for maximum output.
2.	Set reception switch at "CW" and adjust A7 for 1000KC note.						
	Set selectivity control to crystal/broad. Turn A4 slowly in one direction across the resonant setting obtained above and "rock" the signal generator observing the dip in the output meter reading. The correct setting of A4 is in center of the observed dip. Set the signal generator at the weaker of the two peaks obtained on either side of zero beat and adjust A2 (crystal phasing trimmer) for the null.						
4.	Set selectivity control to crystal/sharp and A3 near minimum capacity. Slowly increase its capacity while "rocking" the signal generator and adjust for maximum output. It may be necessary to reduce the signal generator input and the receiver sensitivity to prevent overloading. After peaking A3, turn it in (anti) a 2 dB drop in output occurs.						
5.	Tune signal generator to the exact crystal frequency and note output meter reading. Set selectivity control to crystal/broad position and note the drop in output reading. Switch to crystal/medium position and with A10 pre-set near minimum capacity, slowly increase its capacity, while "rocking" the signal generator, until output meter reads half way between output readings obtained in the sharp crystal and broad crystal positions.						
6.	Set reception switch to "AM" and the selectivity control to crystal/sharp and set signal generator to the exact crystal frequency. Switch to normal/sharp position and read A1, A2, A3, A5, A6, and A11 for maximum output.						
7.	Set reception switch to "CW" and adjust A7 for zero beat.						
DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
8. 1MFD	High side to Pin 1 (Grid) 782 (V4). Low side to chassis.	10.7KC	Band 3	Mid Scale	Across voice coil	A12, A13, A14, A15, A16	Adjust for maximum output.
9. 1MFD	"	"	"	"	"	A17, A18	Adjust for maximum output. Do not readjust A12 thru A16.
10.	Remove 400KC modulation and set reception control to "AM". Adjust A10 for zero beat.						
11.	Add 400KC modulation, turn reception control to "FM" and adjust A20 for maximum output.						
12.	Adjust A20 for the null or minimum indication on the output meter. Slowly tune signal generator thru 10.7KC and note the two maximum readings on the output meter. If the peaks are equal, the discriminator transformer is properly aligned. If not, it may be necessary to readjust A20 until reasonable balance is obtained.						

Connect signal generator high side thru RMA dummy to A11 on antenna terminal strip and place a jumper across the A-89 and VHF terminals. Use only enough signal from generator to give a 500 milliwatt output reading for best results.

The RMA dummy antenna consists of a 200MM capacitor in series with a 200H. RF choke which is shunted by a 400KC capacitor in series with a 400H carbon resistor.

DUMMY ANTENNA	SIGNAL GENERATOR COUPLING	SIGNAL GENERATOR FREQUENCY	BAND SWITCH POS.	RADIO DIAL SETTING	OUTPUT METER	ADJUST	REMARKS
13. RMA Dummy	High side to Pin 1 on anti. terminal strip. Low side to chassis.	1500KC	Band 1	1500KC	Across voice coil	A22, A23, A24, A25	Adjust for maximum output.
14. RMA Dummy		600KC	"	600KC	"	A26	" " " "
15. RMA Dummy	"	4.5MC	Band 2	4.5MC	"	A27, A28, A29	" " " "
16. RMA Dummy	"	2.0MC	"	2.0MC	"	A30	" " " "
17. RMA Dummy	"	14.0MC	Band 3	14.0MC	"	A31, A32, A33, A34	" " " "
18. RMA Dummy	"	7.0MC	"	7.0MC	"	A35, A36, A37, A38	" " " "
19. RMA Dummy	"	38.0MC	Band 4	38.0MC	"	A39, A40, A41, A42	" " " "
20. RMA Dummy	"	18.0MC	"	18.0MC	"	A43, A44, A45, A46	" " " "
21. 3000 carbon res.	High side thru 3000 to A11. Low side to chassis.	50.0MC	Band 5	50.0MC	"	A47, A48, A49, A50	" " " "
22. 3000 carbon res.		30.0MC	"	30.0MC	"	A51, A52, A53, A54	" " " "
23. 3000 carbon res.	"	105KC	Band 6	105KC	"	A55, A56, A57, A58	" " " "
24. 3000 carbon res.	"	60MC	"	60MC	"	A59, A60, A61, A62	" " " "

VOLTAGE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
1	604	225VDC	0V	0V	6.3VAC	225VDC	-4VDC	0V	
2	6AK7	0V	11.6VDC	0V	6.3VAC	225VDC	163VDC	1.69DC	
3	6AK7	-1.1VDC	1.6VDC	0V	6.3VAC	24VDC	1.6VDC	1.6VDC	
4	6V2	-2VDC	0V	8.8VDC	1VDC	0V	125VDC	8.3VAC	9-2.4VDC
5	6AK7	0V	6.3VAC	0V	0V	11.2VDC	160VDC	0V	240VDC
6	600GT	0V	6.3VAC	0V	0V	2.2VDC	14.9VDC	0V	243VDC
7	2H2	0V	225VDC	160VDC	0V	0V	0V	2.6VDC	6.3VAC
8	2H2	0V	24VDC	16VDC	0V	0V	-4VDC	0V	6.3VAC
9	6A8	0V	0V	-5.7VDC	1.8VDC	-1.3VDC	0V	6.3VAC	0V
10	2A4	0V	130VDC	0V	0V	0V	16.5VDC	24VDC	6.3VAC
11	6A8	0V	0V	-3VDC	1.8VDC	0V	6.3VAC	0V	
12	600GT	0V	225VDC	16VDC	0V	225VDC	4VDC	6.3VAC	0V
13	2H2	0V	225VDC	216VDC	0V	0V	0V	6.3VAC	14.5VDC
14	600GT	0V	0V	225VDC	216VDC	0V	0V	6.3VAC	14.5VDC
15	6D6/VR	115VDC	0V	155VDC	0V	155VDC	0V	1.6VDC	0V
16	2U4	0V	60VDC	0V	160VDC	0V	0VDC	250VDC	300VDC

TAKEN WITH VACUUM TUBE VOLTmeter.

RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
1	604	450KΩ	0Ω	0Ω	∞	500KΩ	4.7 Meg	0Ω	
2	6AK7	2.8 Meg	Inf.	0Ω	∞	2.5KΩ	2.5KΩ	17Ω	
3	6A8	1.8KΩ	1.8KΩ	0Ω	∞	1.8KΩ	1.8KΩ	17Ω	
4	2H2	2.2 Meg	0Ω	∞	1000Ω	0Ω	2.2Ω	10Ω	
5	6AK7	0Ω	1.2Ω	0Ω	∞	1.2KΩ	37Ω	0Ω	1.2KΩ
6	6A8	0Ω	1.2Ω	0.3Ω	∞	2.8 Meg	500Ω	0Ω	2.8 Meg
7	2H2	0Ω	111Ω	850Ω	0Ω	0Ω	2.2 Meg	1.8KΩ	2Ω
8	2H2	0Ω	456 Ω	456 Ω	0Ω	0Ω	240Ω	0Ω	2Ω
9	2A4	0Ω	0Ω	160KΩ	200KΩ	120KΩ	Inf.	1Ω	0Ω
10	2A4	0Ω	160KΩ	11Ω	1.2Ω	Inf.	1.2Ω	0.8Ω	0.8Ω
11	6A8	0Ω	0Ω	12.2Meg	1.7 Meg	Inf.	150KΩ	2.8Ω	1.2Ω
12	600GT	1 Meg	420KΩ	1.4Ω	8.3Ω	520KΩ	1.25Ω	0Ω	0Ω
13	6V2	0Ω	0Ω	120Ω	120Ω	120Ω	1.2Ω	0.8Ω	2Ω
14	6V2	0Ω	0Ω	120Ω	120Ω	120Ω	0.8Ω	2Ω	2Ω
15	6D6/VR	2.8KΩ	Inf.	1.2KΩ	220KΩ	220KΩ	1.2Ω	2.2KΩ	Inf.
16	2U4	Inf.	60KΩ	Inf.	10Ω	Inf.	8Ω	40KΩ	50KΩ

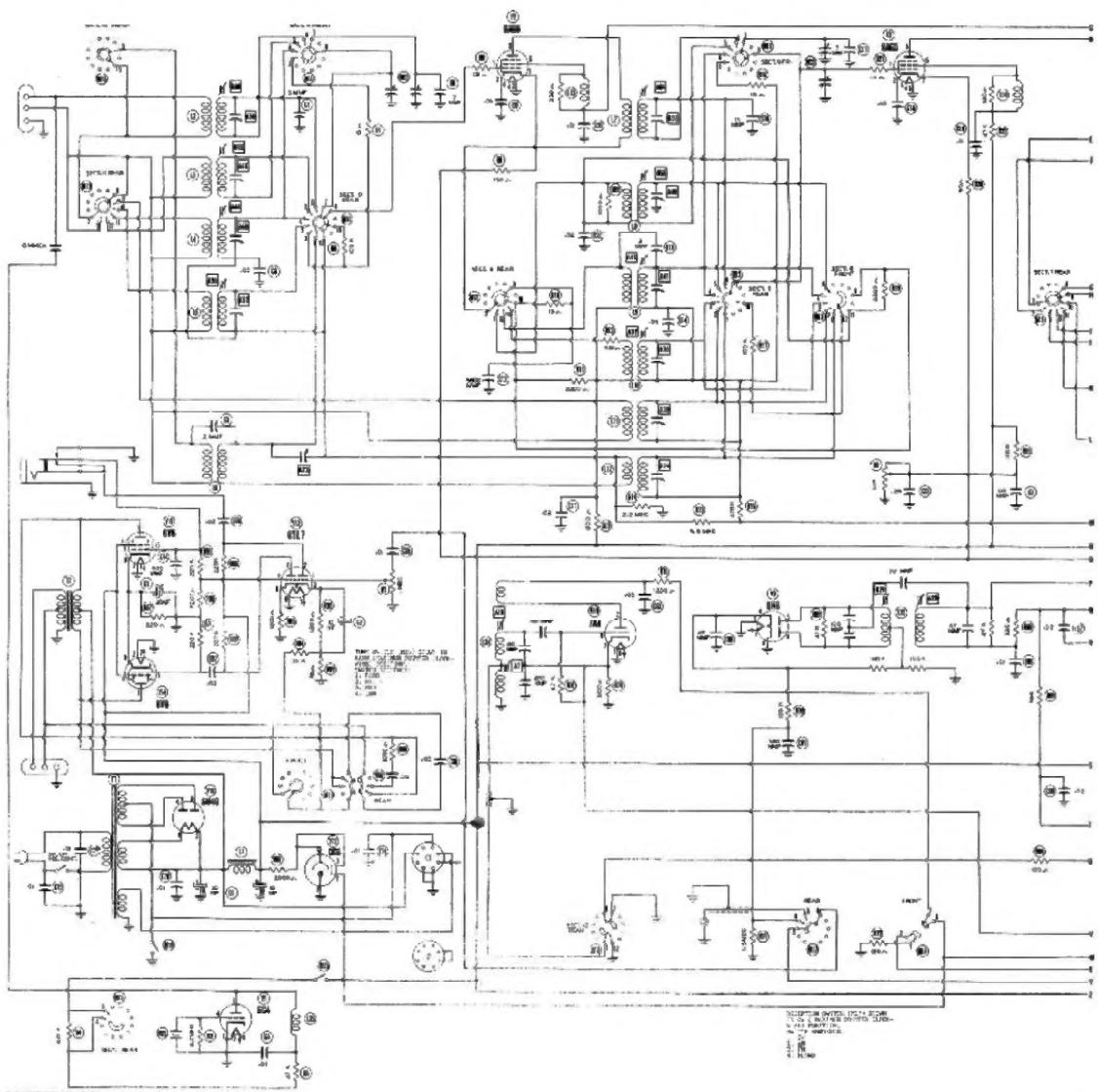
* VOLTAGE AND RESISTANCE READINGS TAKEN IN FM POSITION.

* Measured from pin 5 of V16 (6A8)

† Taken in Band 2 position.

- DC Voltage measurements are at 20,000 ohms per volt; AC Voltages measured at 1,000 ohms.
- Socket connections are shown as bottom views.
- Measured values are from socket pin to common negative.

- Line voltage maintained at 117 volts for voltage readings.
- Nominal tolerance on component values makes possible a variation of ±15% in voltage and resistance readings.
- Volume control at maximum, no signal applied for voltage measurements.



A PROSPECT STANDARD NOTATION SCHEME¹
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499-12

VOLTAGE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
1	604	225VDC	0V	0V	6.3VAC	225VDC	-4VDC	0V	
2	6AK7	0V	11.6VDC	0V	6.3VAC	225VDC	163VDC	1.69DC	
3	6AK5	-1.1VDC	1.6VDC	0V	6.3VAC	24VDC	1.6VDC	1.6VDC	
4	6V2	-2VDC	0V	8.8VDC	1VDC	0V	125VDC	8.3VAC	9-2.4VDC
5	6AK7	0V	6.3VAC	0V	0V	12.2VDC	160VDC	0V	240VDC
6	600GT	0V	6.3VAC	0V	0V	2.2VDC	14.9VDC	0V	24.9VDC
7	2H2	0V	225VDC	120VDC	0V	0V	2.6VDC	6.3VDC	
8	6H7	0V	5.6VDC	1.6VDC	0V	0V	-1.6VDC	0V	6.3VAC
9	6H6	0V	0V	-5.7VDC	1.6VDC	-1.6VDC	0V	6.3VAC	0V
10	2A4	0V	130VDC	0V	0V	0V	16.5VDC	24VDC	6.3VAC
11	6AS6	0V	0V	1.6VDC	1.6VDC	0V	8.8VDC	1.6VAC	0V
12	6SL7GT	0V	225VDC	1.6VDC	0V	8.8VDC	8VDC	6.3VAC	0V
13	6AK5	0V	0V	225VDC	8.8VDC	0V	14.9VDC	24.9VDC	
14	6V6GT	0V	0V	225VDC	120VDC	0V	0V	6.3VAC	14.5VDC
15	6D6/VR	11.5VDC	0V	155VDC	0V	155VDC	0V	1.6VDC	0V
16	2U4G	0V	60VDC	0V	120VDC	0V	0VDC	250VDC	300VDC

TAKEN WITH VACUUM TUBE VOLTmeter.

RESISTANCE READINGS

Item	Tube	Pin 1	Pin 2	Pin 3	Pin 4	Pin 5	Pin 6	Pin 7	Pin 8
1	604	450K Ω	0 Ω	0 Ω	2 Ω	500K Ω	4.7 Meg	0 Ω	
2	6AK5	2.8 Meg	Inf.	0 Ω	2 Ω	42.5K Ω	42.5K Ω	170 Ω	
3	6AS6	1.6K Ω	1 Ω	0 Ω	2 Ω	51.5K Ω	5710 Ω	170 Ω	
4	7F6	2.2 Meg	0 Ω	0 Ω	1000 Ω	0 Ω	2.2 Ω	100 Ω	
5	6AK7	0 Ω	2 Ω	0 Ω	4.2 Meg	370 Ω	80K Ω	0 Ω	21.3K Ω
6	6AS7	0 Ω	1.2 Ω	0.5K Ω	2.6 Meg	570 Ω	60K Ω	0 Ω	21.3K Ω
7	2H2	0 Ω	411K Ω	850K Ω	0 Ω	0 Ω	2.2 Meg	1.6K Ω	2 Ω
8	2H2	0 Ω	456 Ω	456 Ω	0 Ω	0 Ω	240K Ω	0 Ω	2 Ω
9	2A4	0 Ω	0 Ω	180K Ω	200K Ω	120K Ω	Inf.	1.6 Ω	0 Ω
10	2A4	0 Ω	4160K Ω	110 Ω	122 Ω	Inf.	145 Ω	5K Ω	2 Ω
11	6H6	0 Ω	0 Ω	12.2Meg	1.7 Meg	Inf.	150K Ω	2.32 Ω	100 Ω
12	6SL7GT	2 Meg	420K Ω	1.4K Ω	8.3K Ω	520K Ω	1.25 Ω	2 Ω	0 Ω
13	6V6GT	0 Ω	0 Ω	4200 Ω	4200 Ω	3200 Ω	170 Ω	1.6 Ω	240 Ω
14	6V6GT	0 Ω	0 Ω	4200 Ω	4200 Ω	3200 Ω	56 Ω	1.6 Ω	240 Ω
15	6D6/VR	2.4K Ω	Inf.	42.2K Ω	220K Ω	42.2K Ω	1.6 Ω	42.2K Ω	Inf.
16	2U4G	Inf.	60K Ω	Inf.	10 Ω	Inf.	80 Ω	4K Ω	50K Ω

* VOLTAGE AND RESISTANCE READINGS TAKEN IN FM POSITION.

* Measured from pin 5 of V16 (6L47)

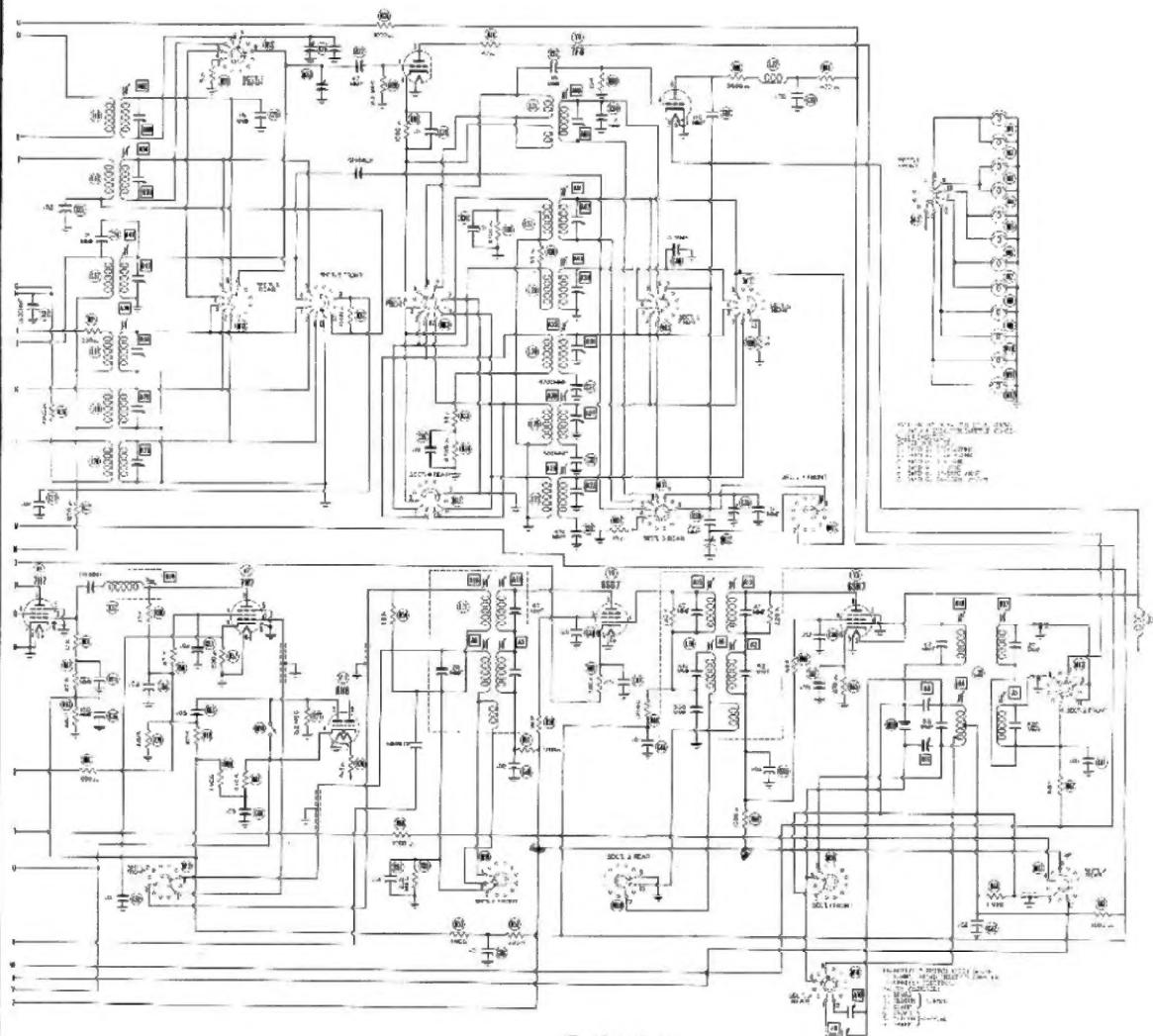
† Taken in Band 2 position.

- DC Voltage measurements are at 20,000 ohms per volt; AC Voltages measured at 1,000 ohms.
- Socket connections are shown as bottom views.
- Measured values are from socket pin to common negative.

- Line voltage maintained at 117 volts for voltage readings.
- Nominal tolerance on component values makes possible a variation of $\pm 15\%$ in voltage and resistance readings.
- Volume control at maximum, no signal applied for voltage measurements.

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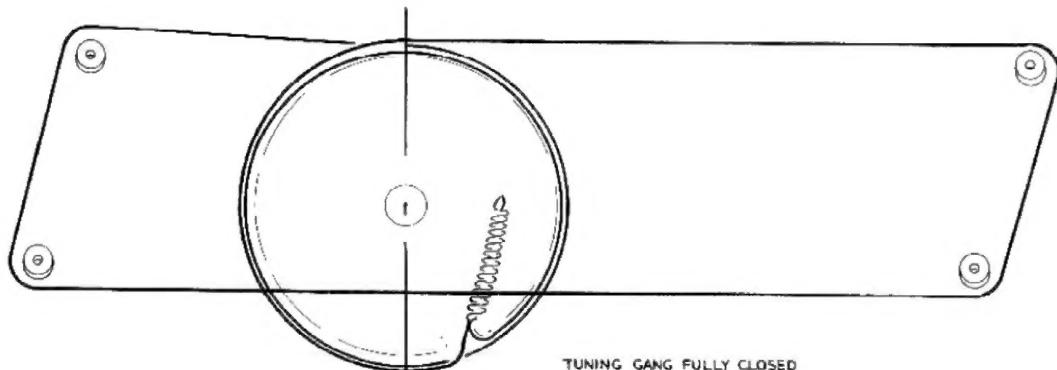


IF-455 KC AM

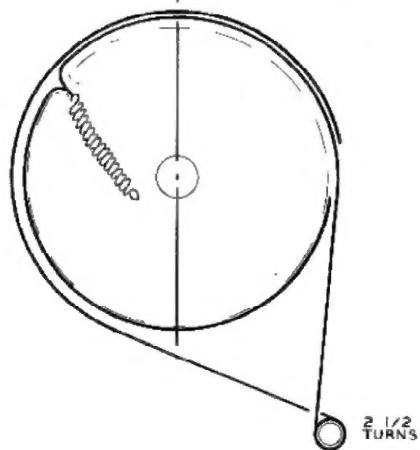
IF-10.7 MC FM

A. NO-DISTORTION STANDARD AMPLIFIER, SUPPLY 12
1. Frequency 1000 Kc. 2. 100 Ma.

499-12



TUNING GANG FULLY CLOSED



DIAL CORD DRIVE